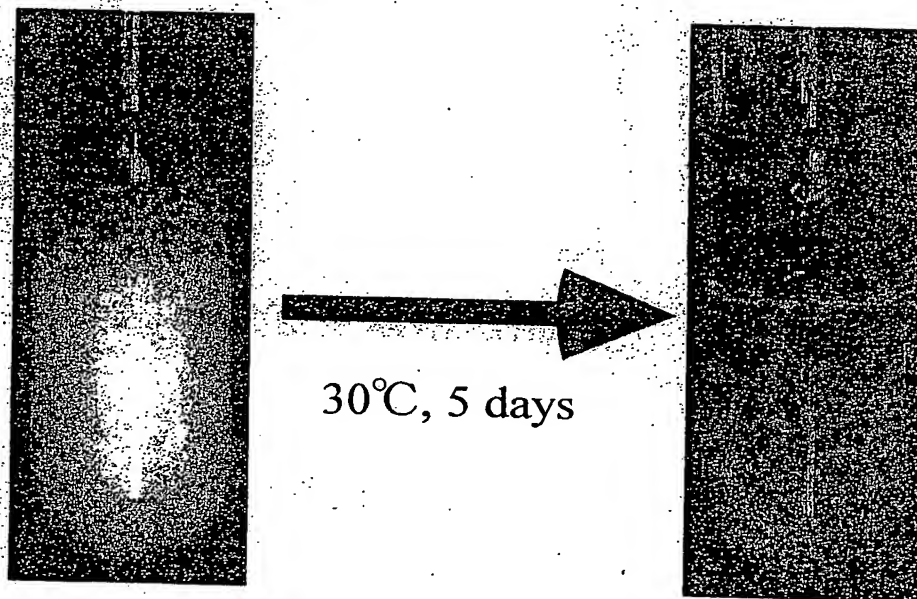
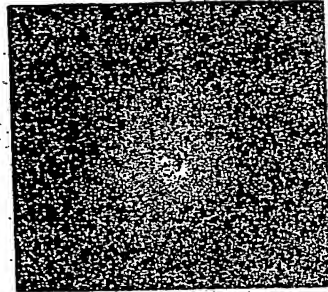


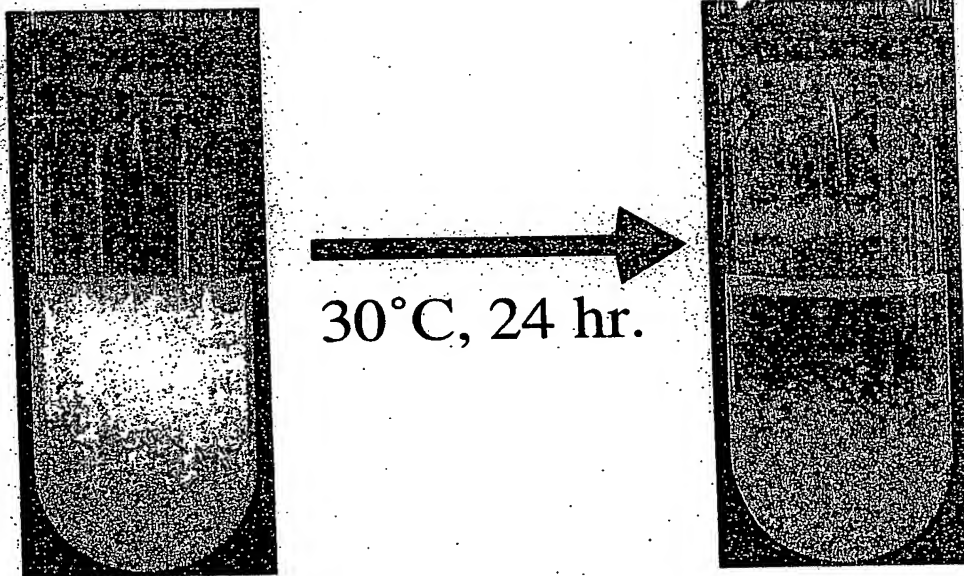
(A) Halo formation on PBS emulsion minimal agar medium



(B) Decrease in turbidity in PBS emulsion minimal liquid medium



(A) Halo formation on PLA emulsion minimal agar medium



(B) Decrease in turbidity in PLA emulsion minimal liquid medium

FIG. 2

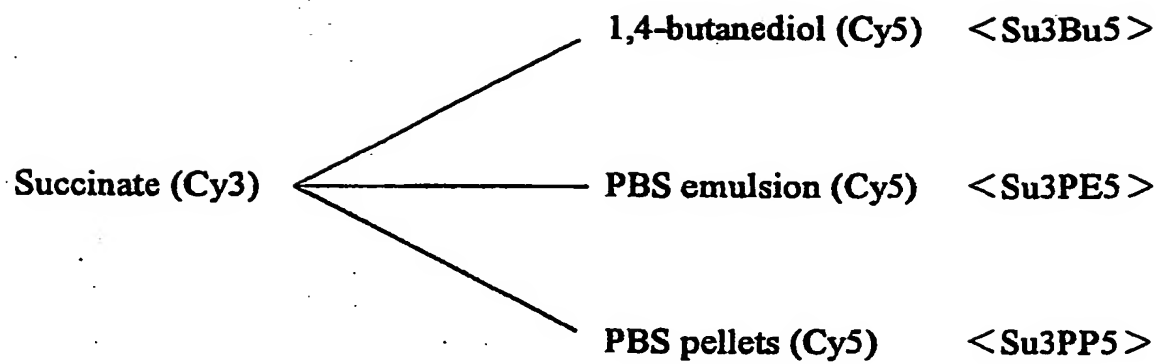


FIG. 3

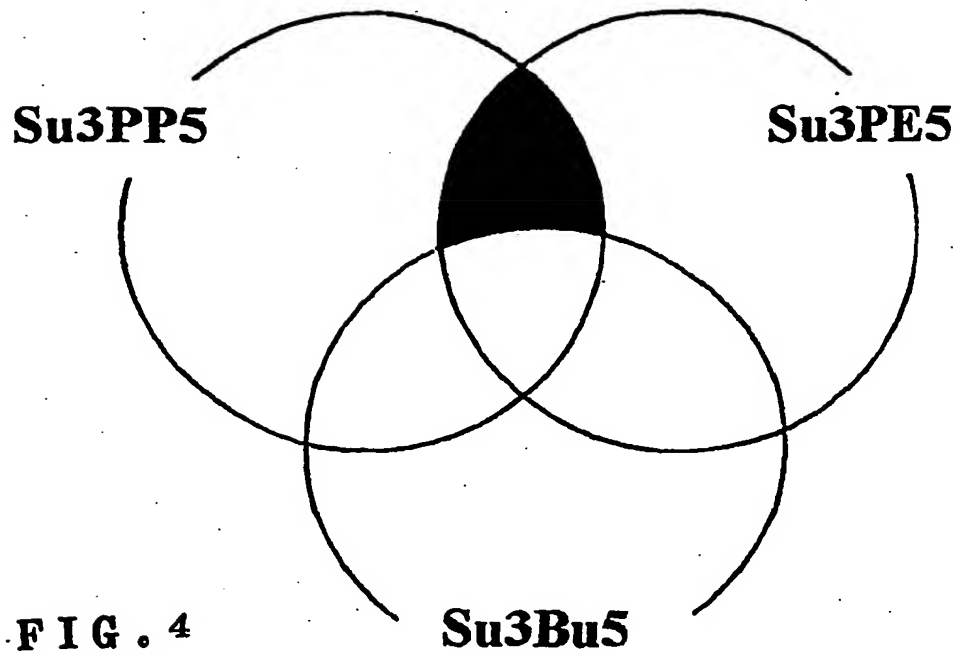


FIG. 4







GENE	Su3PP5	Su3PE5	Su3Bu5
JZ3981 hydrophobin	 9.11	 18.0	 1.27
Histone	 0.86	 1.01	 1.03

FIG. 5

CCAGAACATTTGGCTGCCCTAGTCTGTGCACGTGAACACGCTCATTCACACTCTTCACAGTTCAGTCTTCCTCCAG
 ACAAGCTTCTCTCGCTTACAAACTTCTCCGAGTCTACCCCTCGTTCAAAACCAAGCCACCATCAACAATGCAGTTC
 TCCGTGCCCGCTGTTCTTGCTCTGGCTACTGCCGTTGCCGCTCTTCCTCTGCTCTGCGCACTGGCGCTGGCCAG
 S V A A V L A L A T A V A A L P A S G T G A G Q
 CAAGTCGGACACTCCAAGAACGACTTCCCTCTCCCTAAGAGTTGACCACCAAGCAGGCCGCCGACAAAGTGTGGT
 Q V G H S K N D F P L P K E L T T K Q A A D K C G
 GACCAGGCTCAGCTCACCTGCTGCAACAAGACCGTCAAGACCGGTGACTTCACCCAGGTTGAGGAGGGTCTCCTT
 D Q A Q L T C C N K T V K T G D F T Q V E G L L
 GCTGGCTCTCTCCAACCTCTCGGTGCCGACAGGGCTCCAGGGTCTTGGTCTCTTGGATGAGTGCACCAAC
 A G L L S N L L G A G Q G S Q G L G L L D E C T N
 ATCCCTGTTATCCCCATCATCTCCATCGCCCTCTCCTCAGGAGAGTGCAAGCAGCCCATCTCTGCTGCCAGAAC
 I P V I P I I S I A S P Q E K C K Q P I S C C Q N
 ACCAAGTCCAGCGCGATGGCGACCTCGTGGTATGGTCTTCTTCCATCGCTCTCGGCTCTCTCTCTCTGTAAGCG
 T K S S A D G D L V G I G L P C I A L G S L L *
 ATTGCATTEGGCGAAATGGTAGCTCGAGGAGCACGGGA

M Q F

FIG. 6

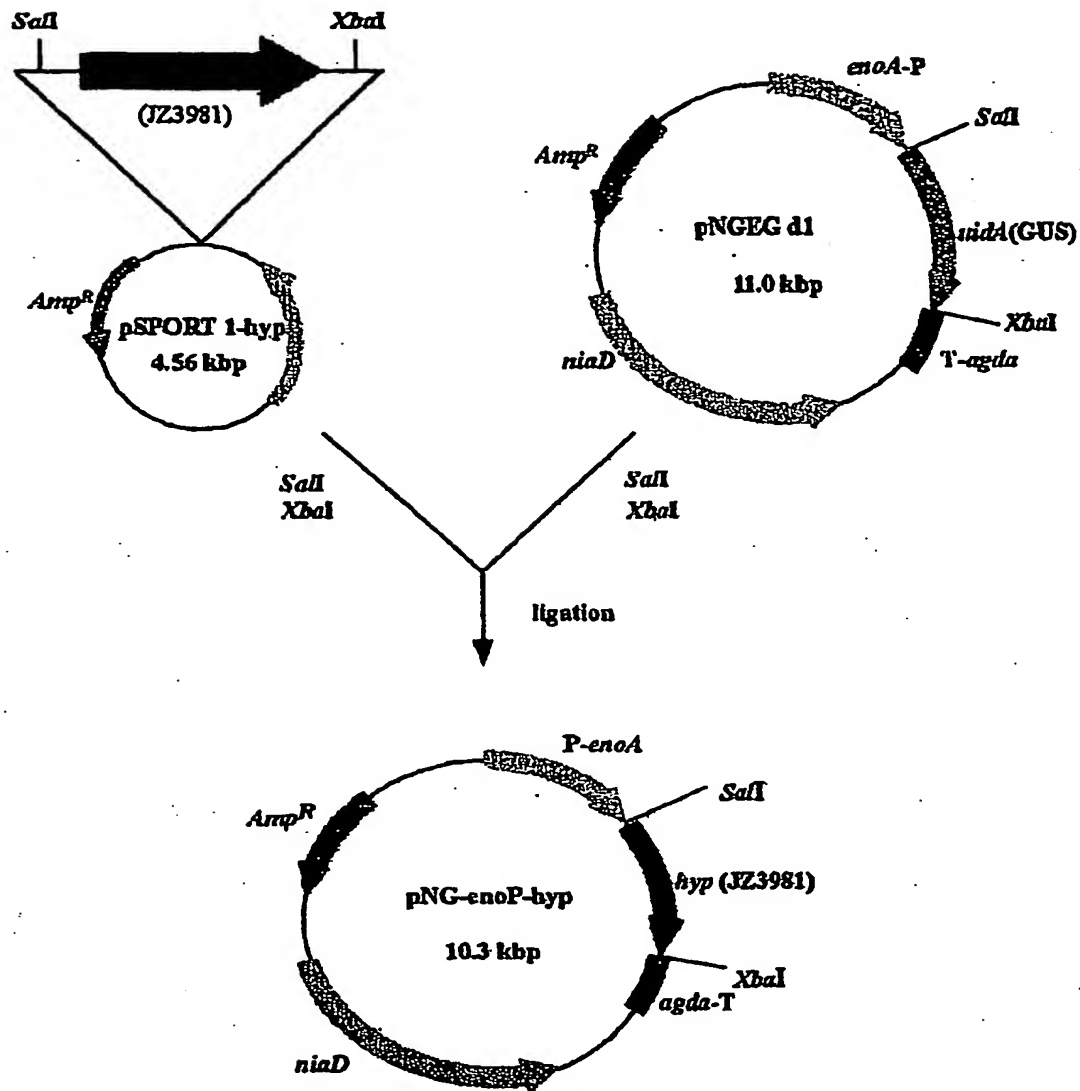
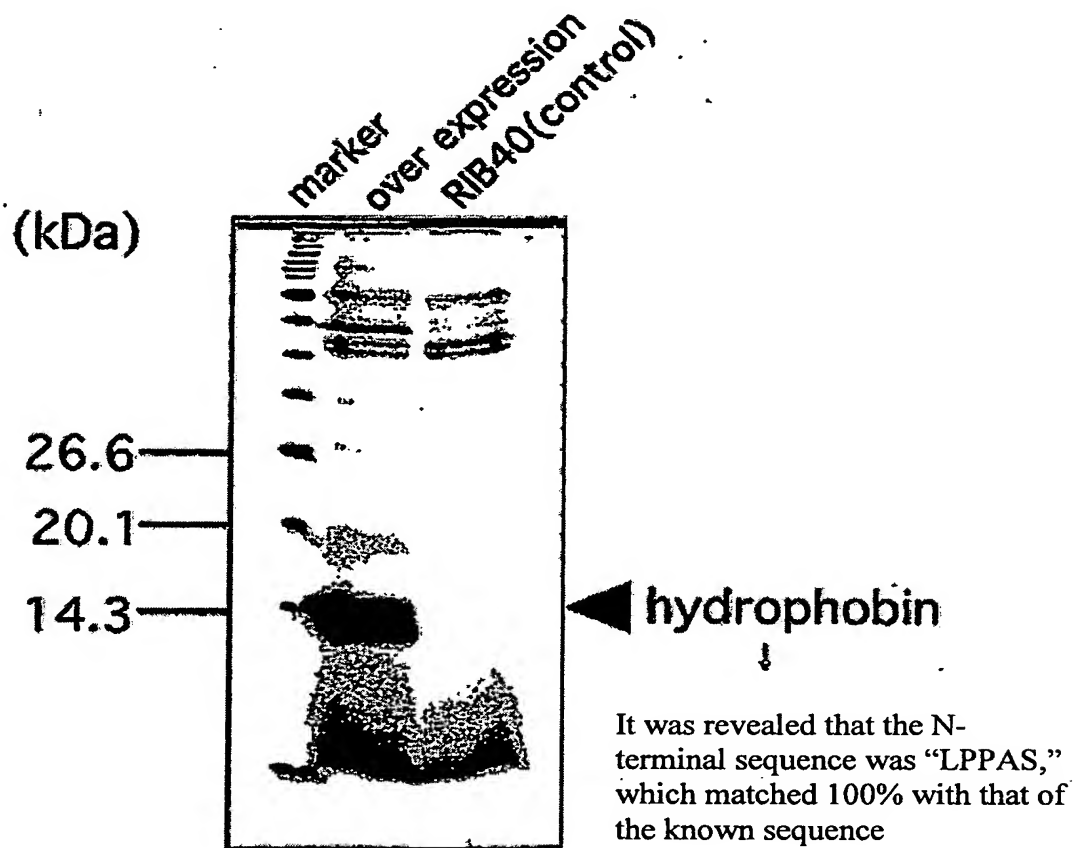


FIG. 7

**FIG. 8**

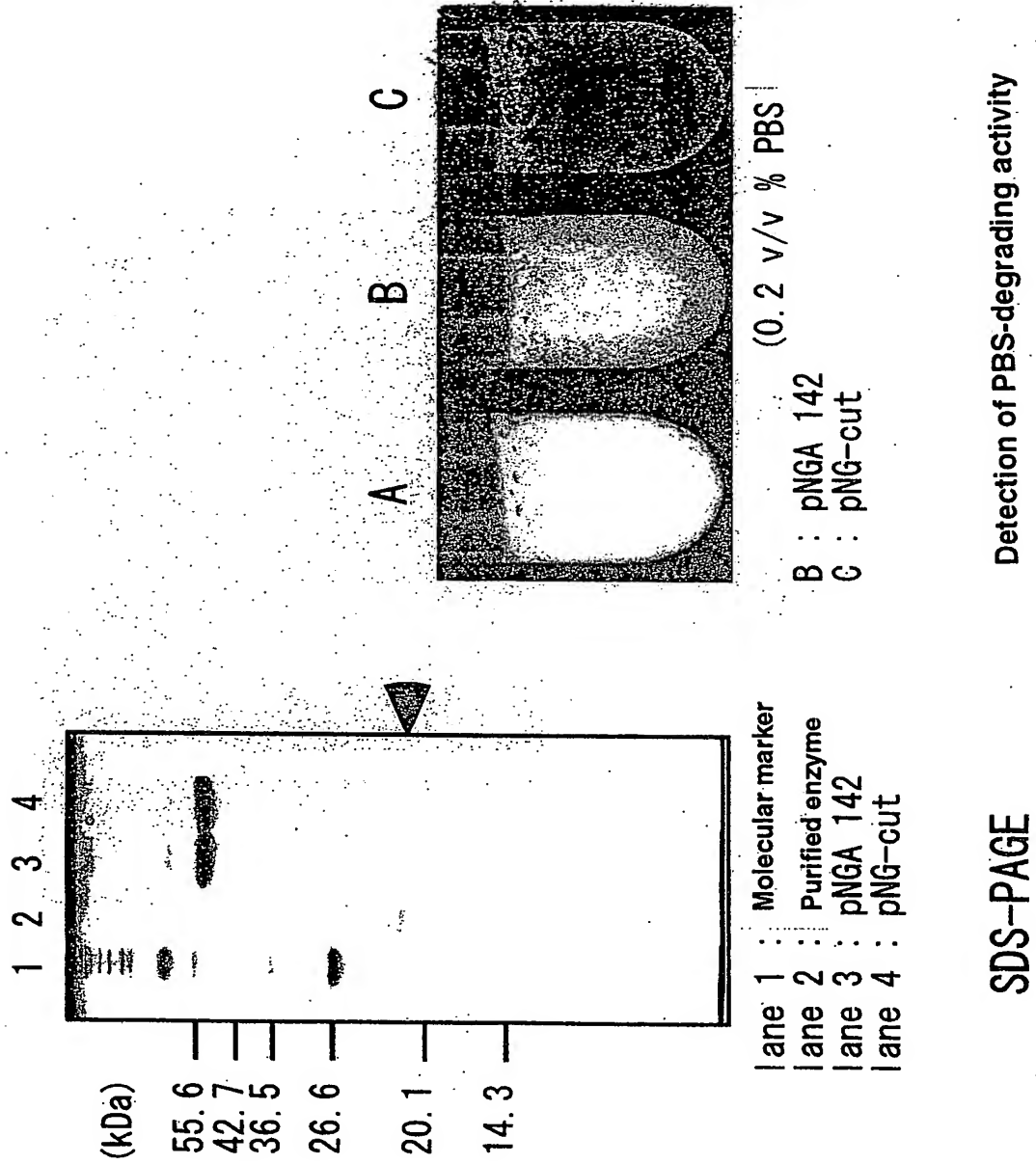


FIG. 9

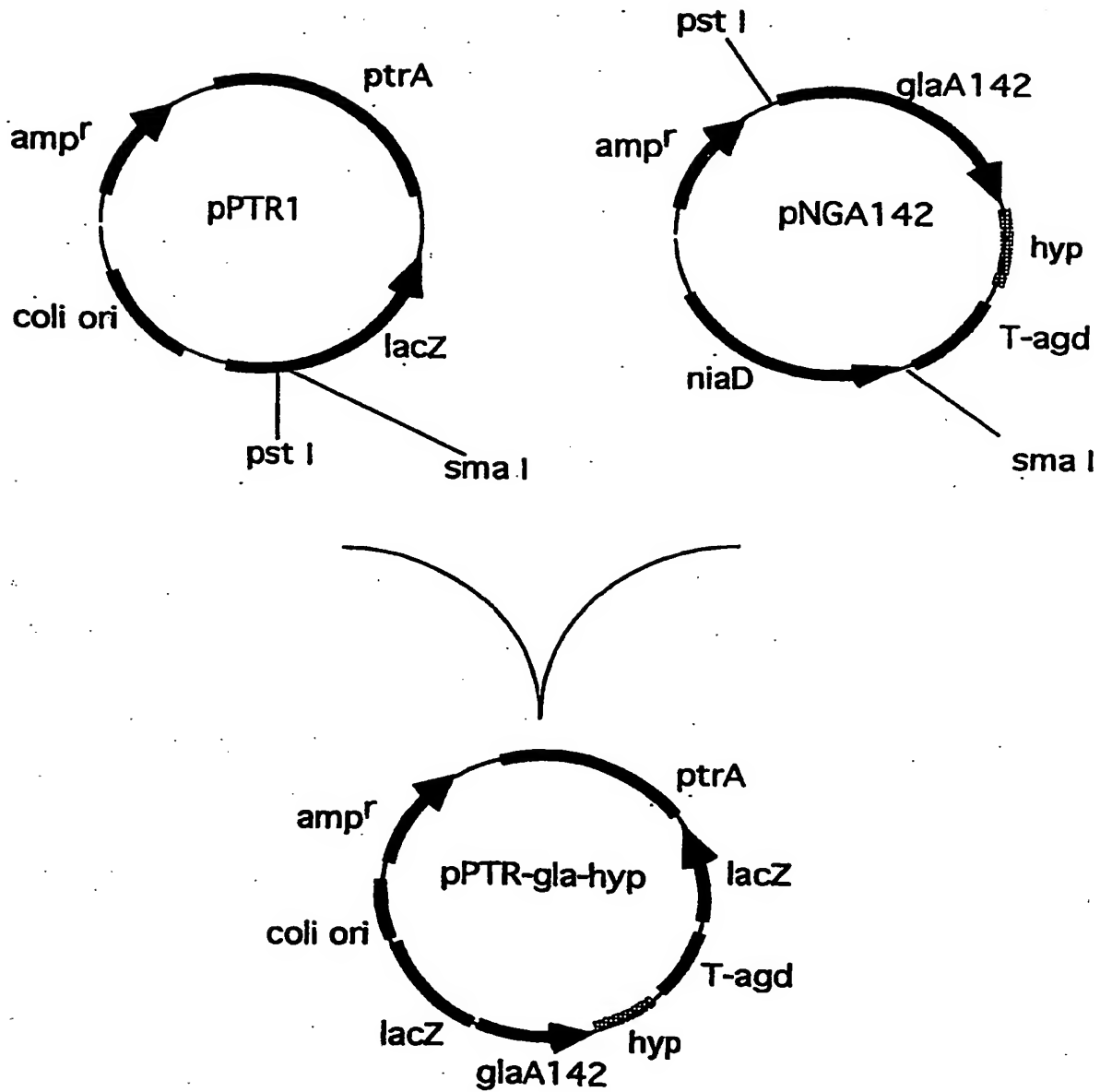


FIG. 10

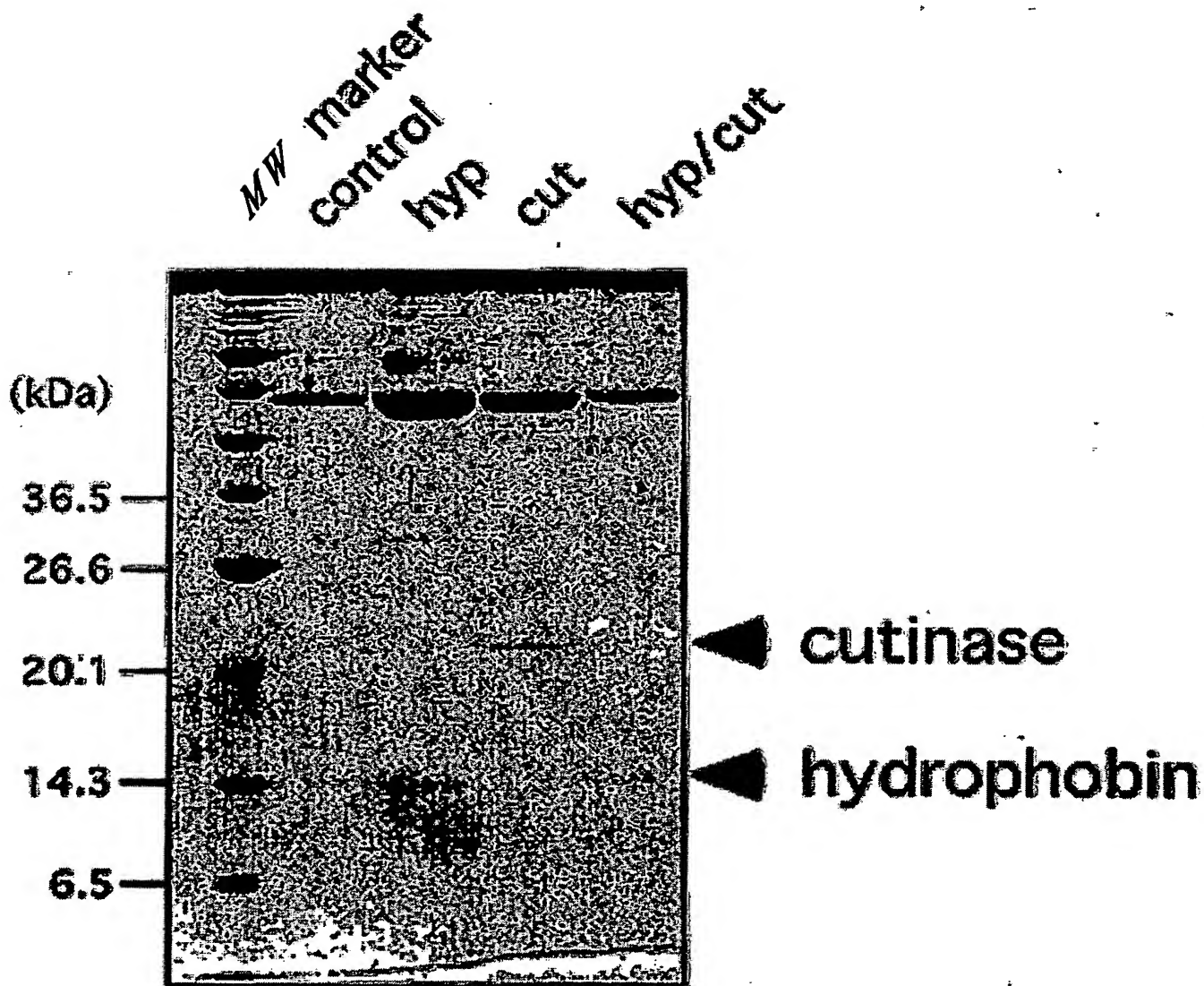
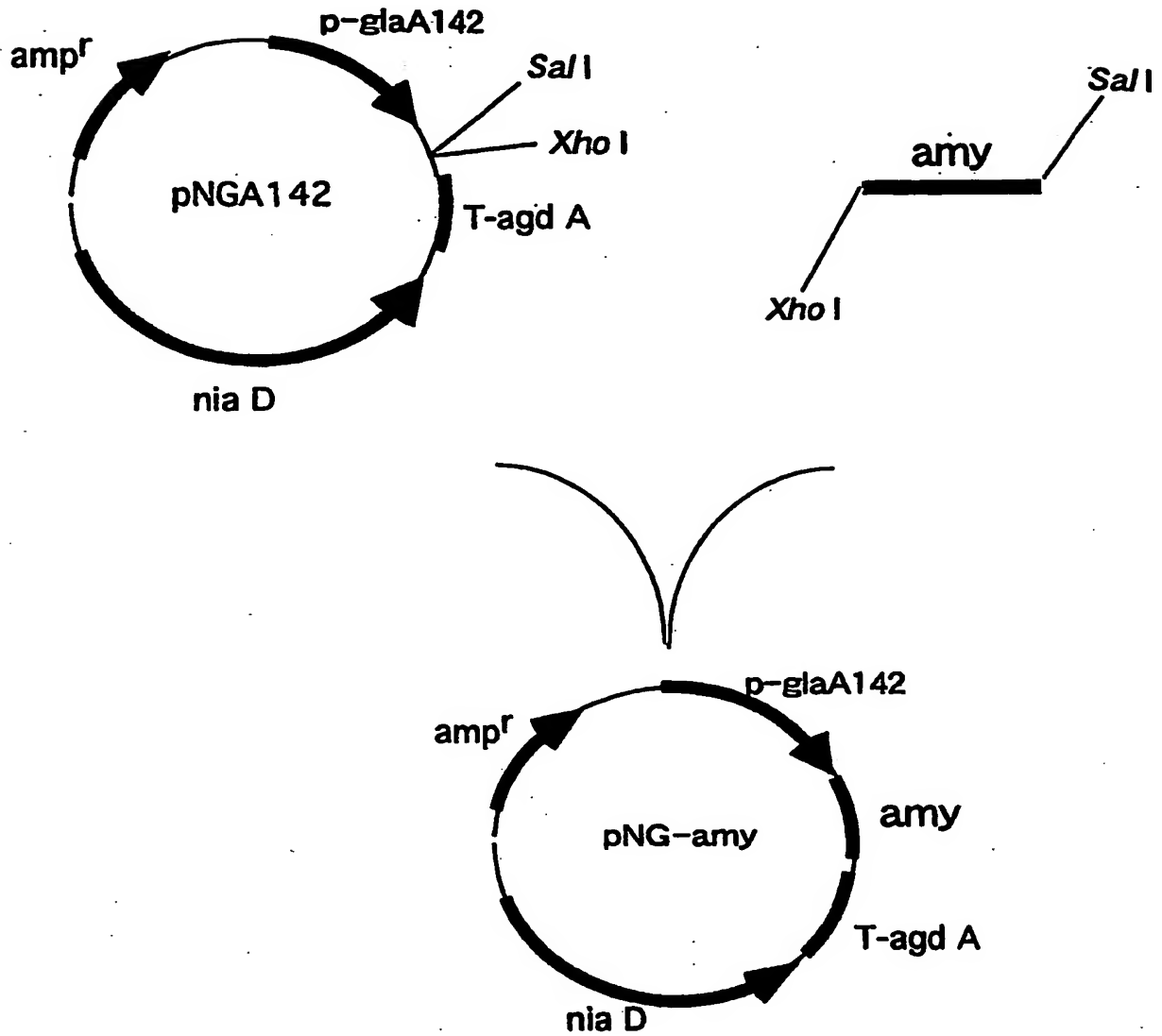


FIG. 11

**FIG. 13**

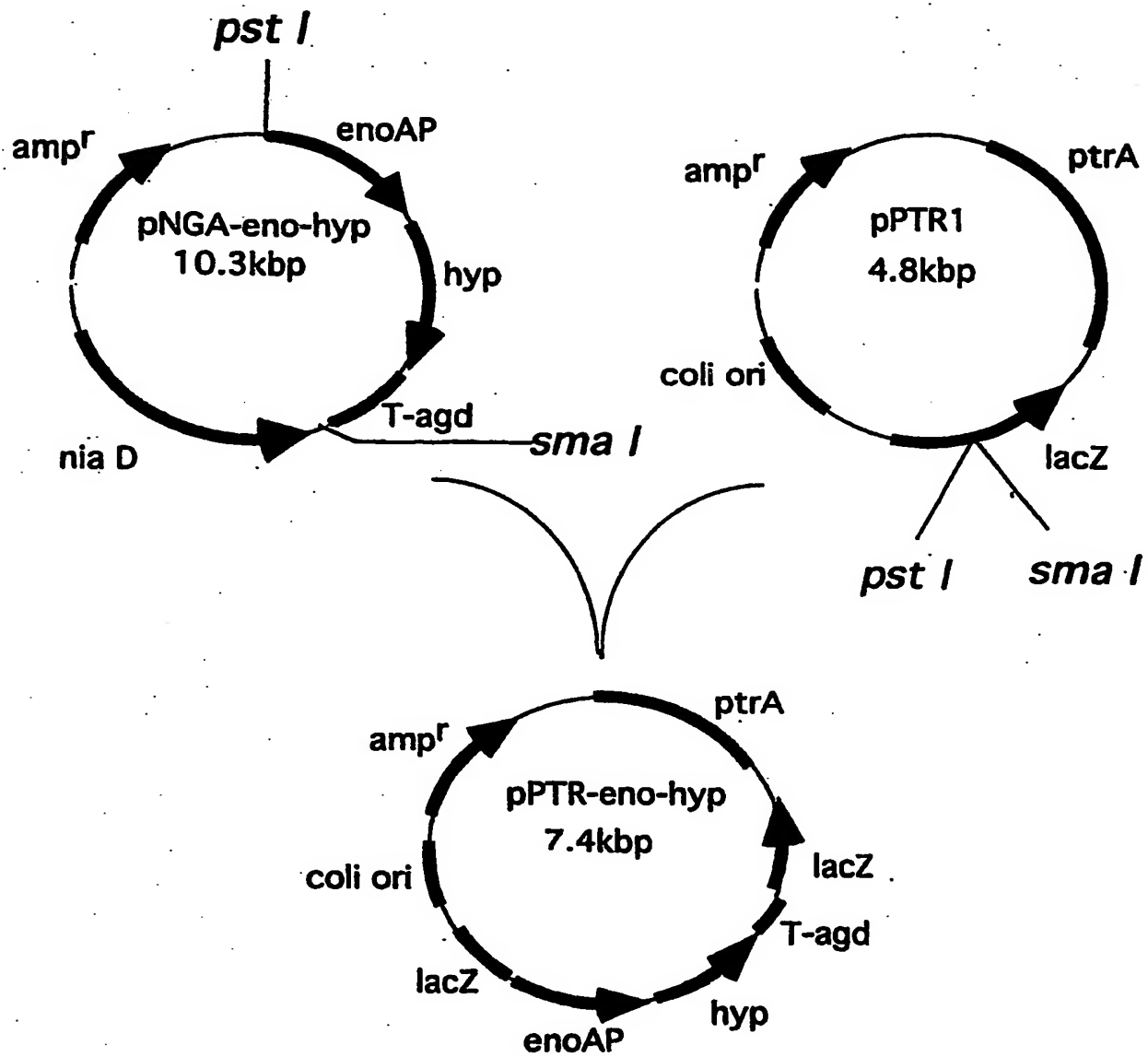


FIG. 12

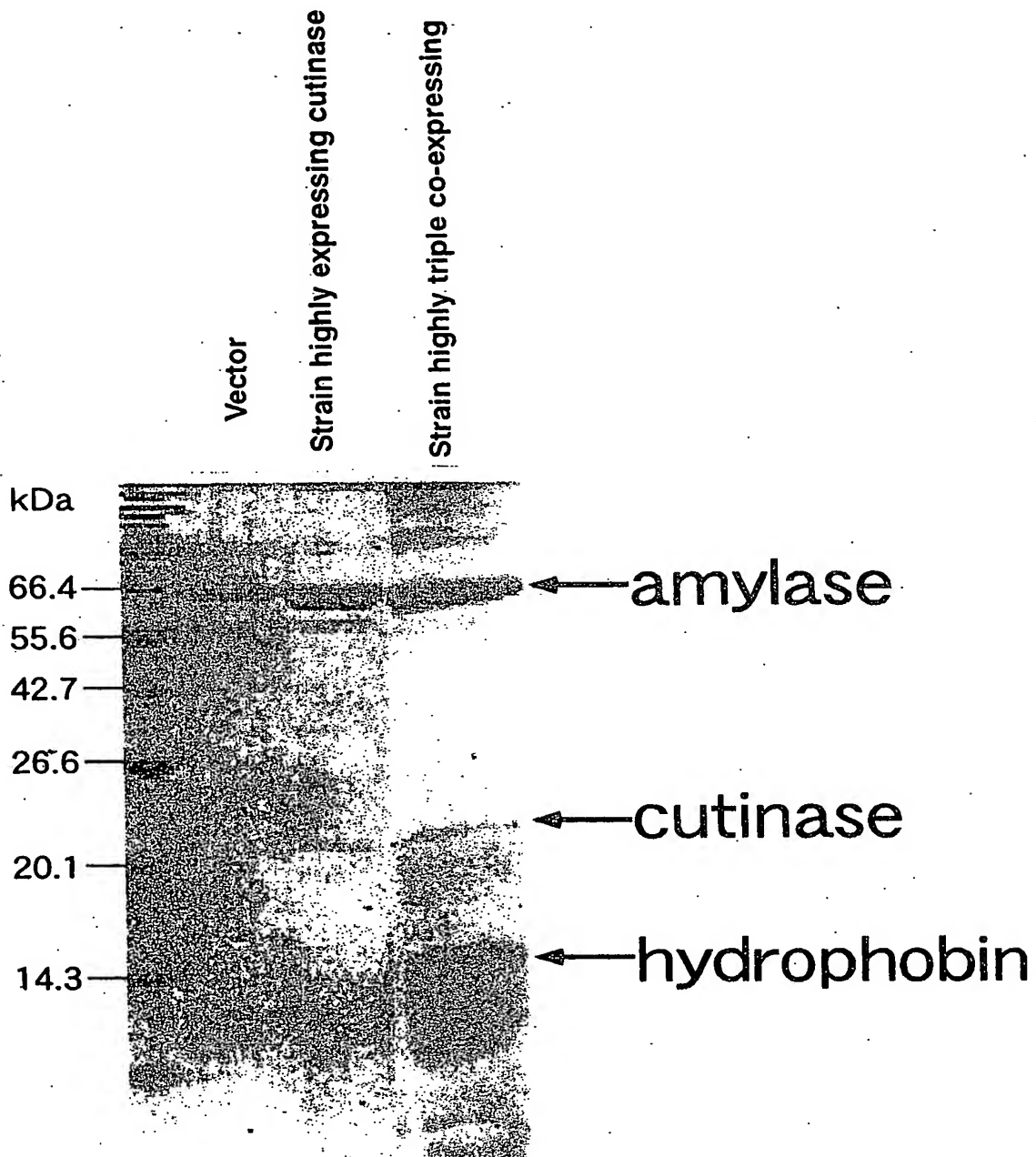
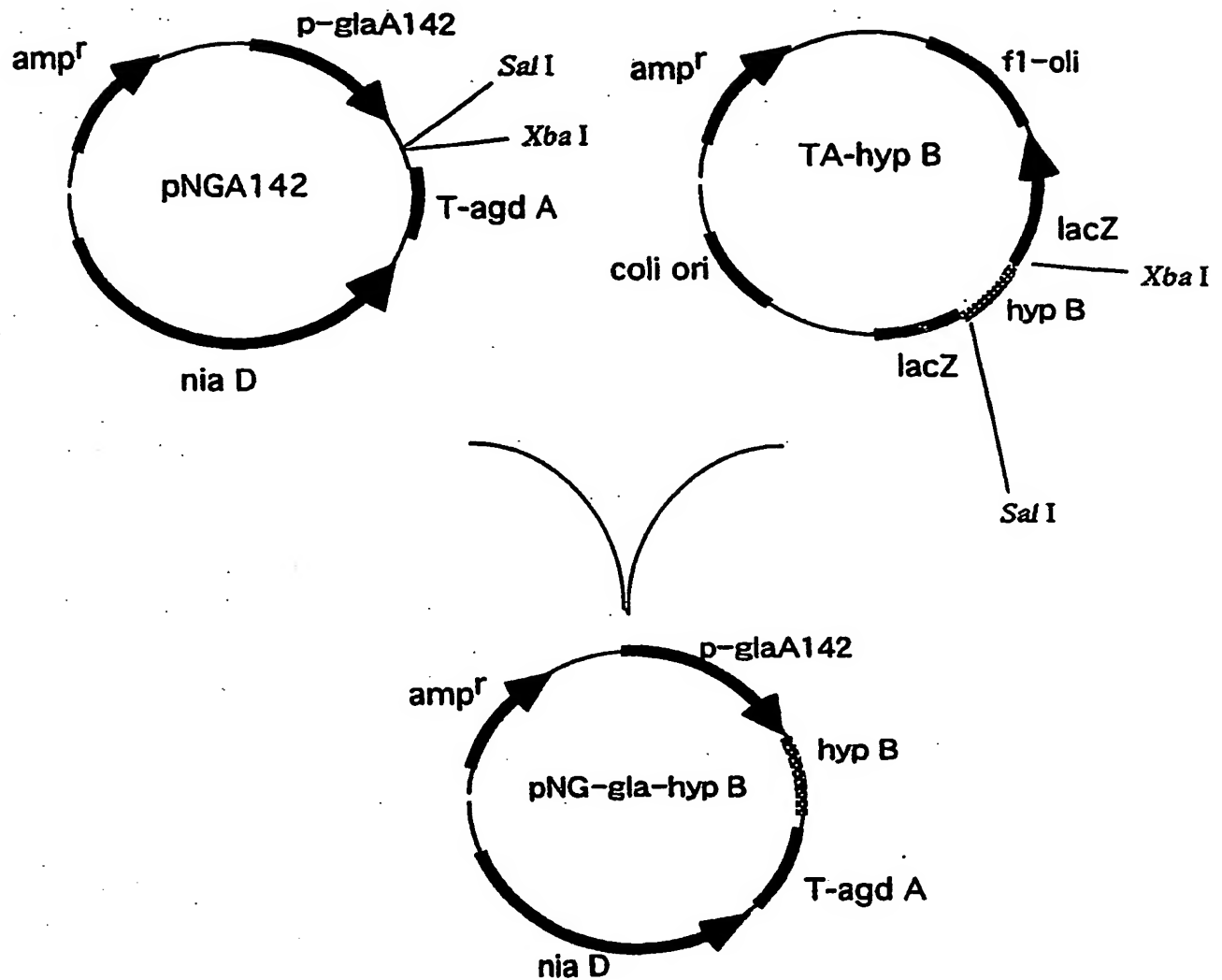
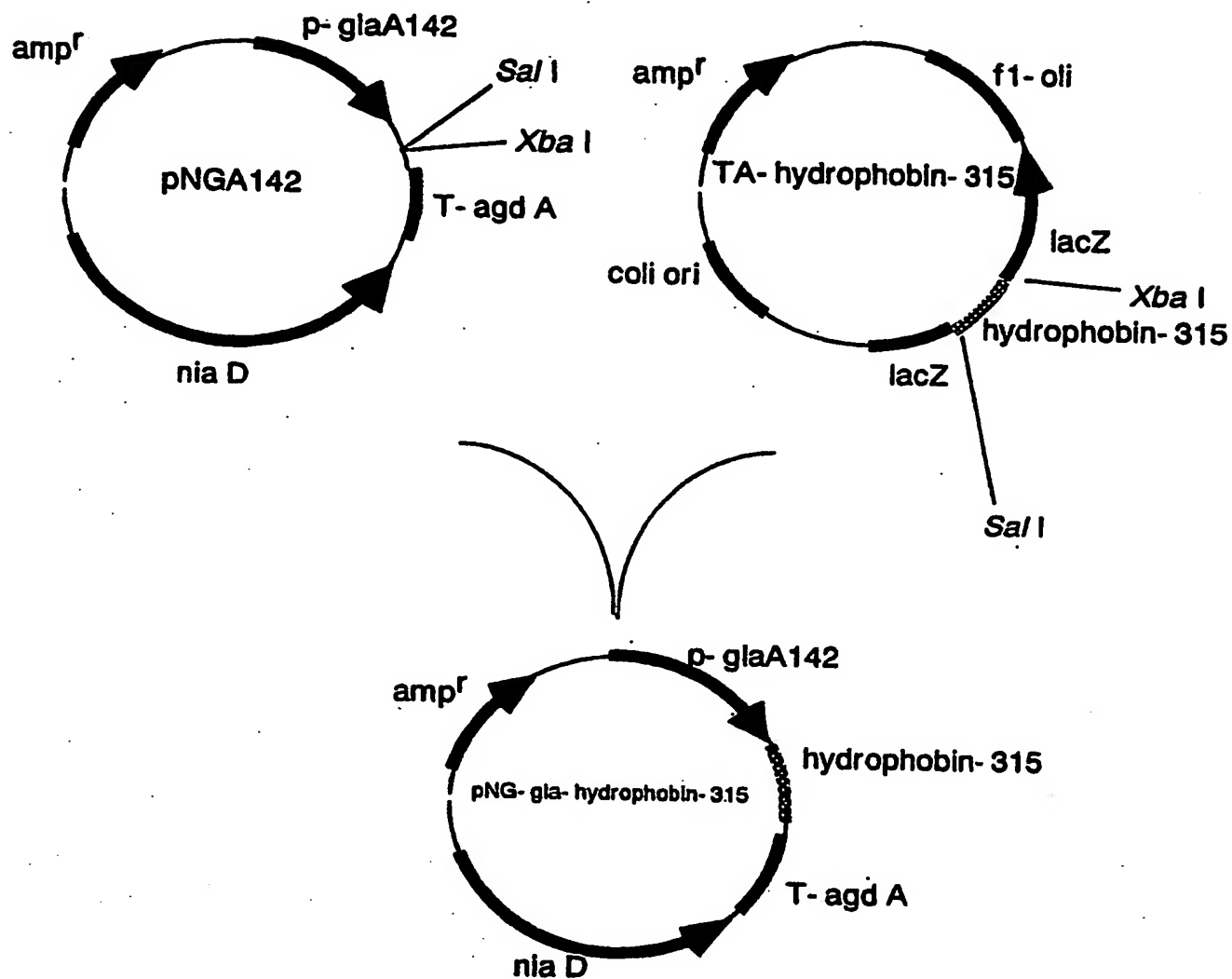


FIG. 14

**FIG. 15**

**FIG. 16**

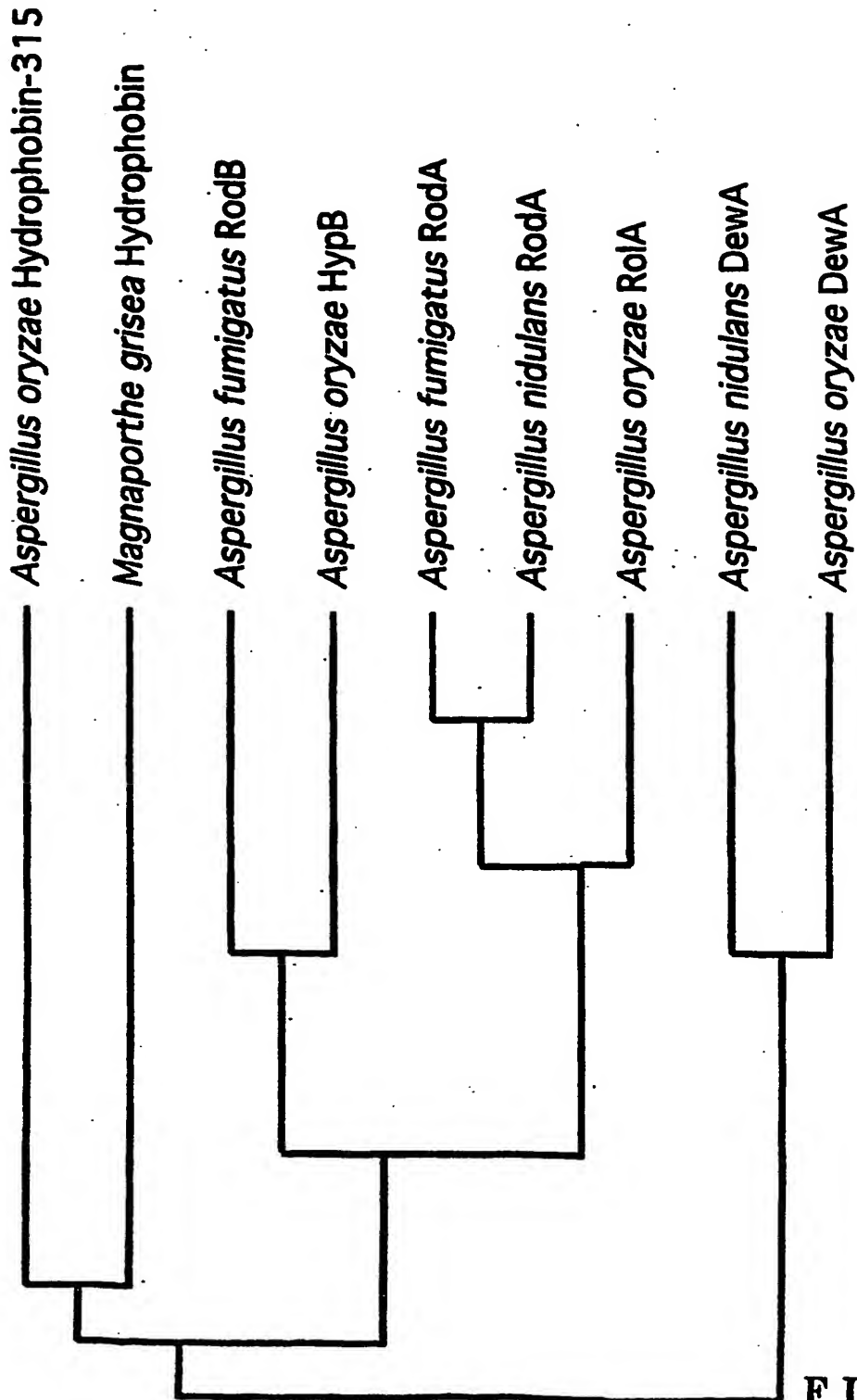


FIG. 17

PBS

2.5 μ g/mL Purified
hydrophobin (Rol A)

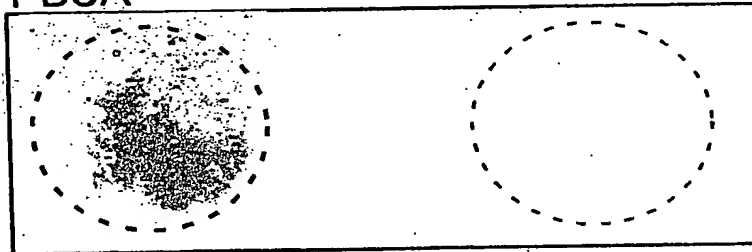
Tris buffer pH8.0

PLA

2.5 μ g/mL Purified
hydrophobin (Rol A)

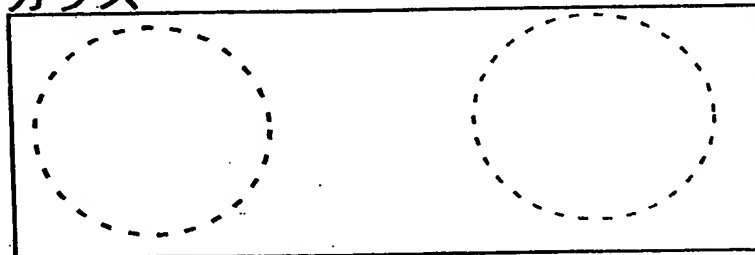
Tris buffer pH8.0

PBSA

2.5 μ g/mL Purified
hydrophobin (Rol A)

Tris buffer pH8.0

ガラス

2.5 μ g/mL Purified
hydrophobin (Rol A)

Tris buffer pH8.0

FIG. 18

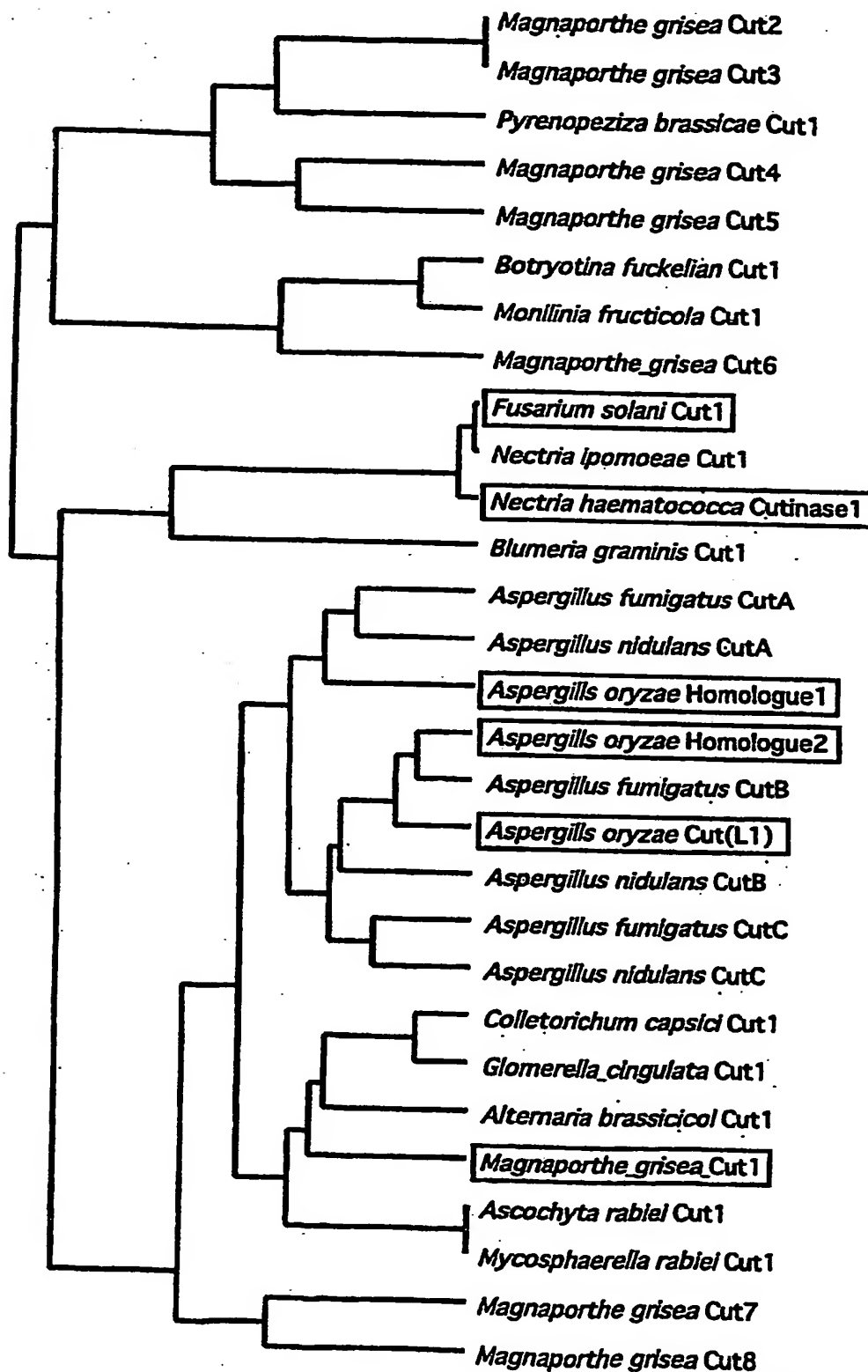
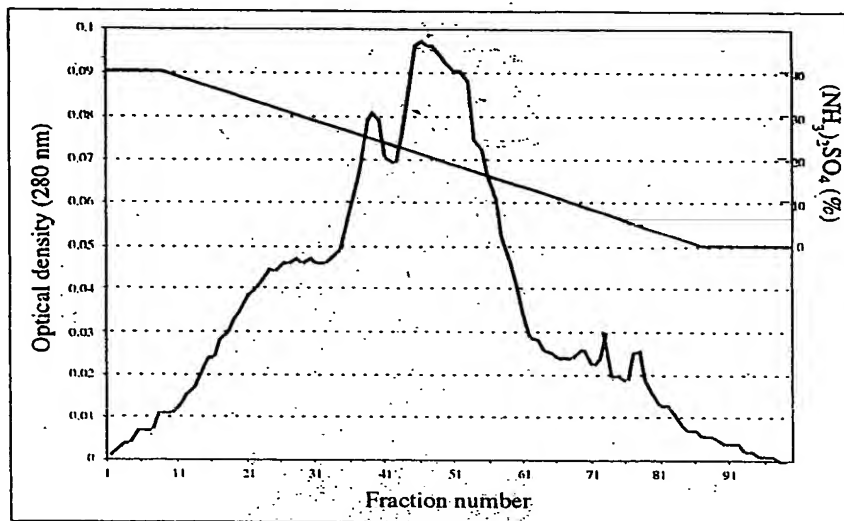


FIG. 19



Protein concentration in an eluate fraction from octylcellulofine column



← 14.3 kDa
DASAVLADFNTLST

← →
Fraction 80-90

FIG. 20

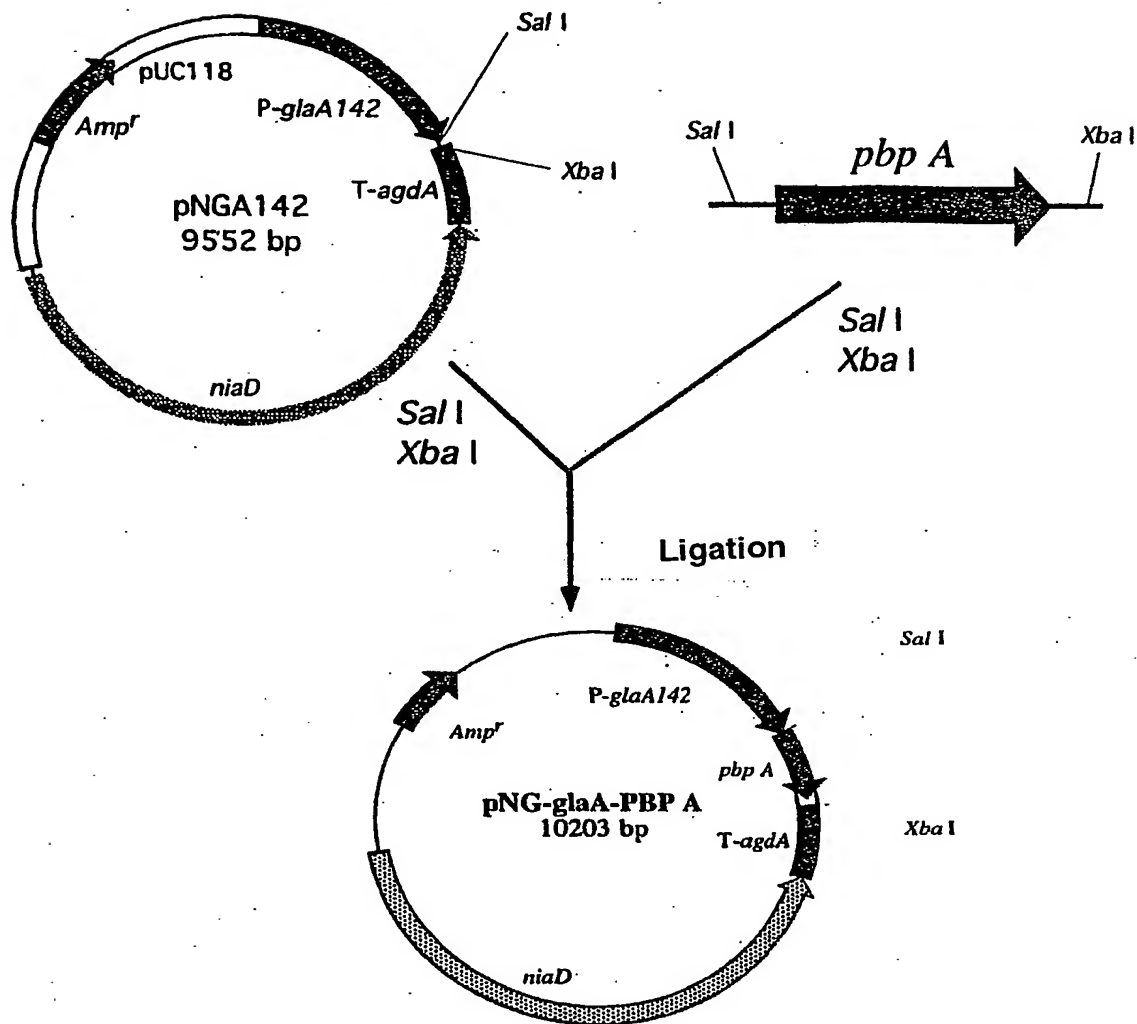
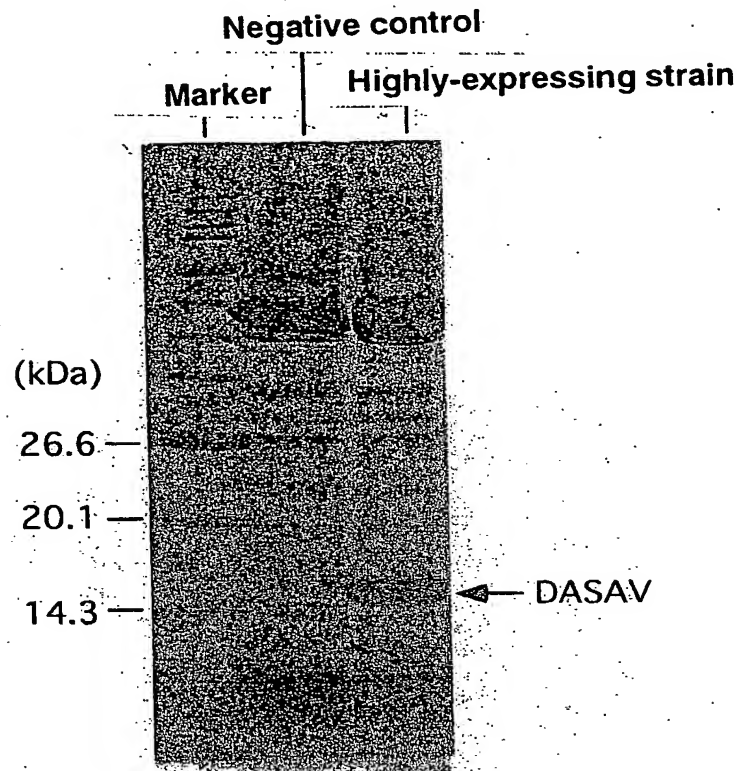


FIG. 21

**FIG. 22**

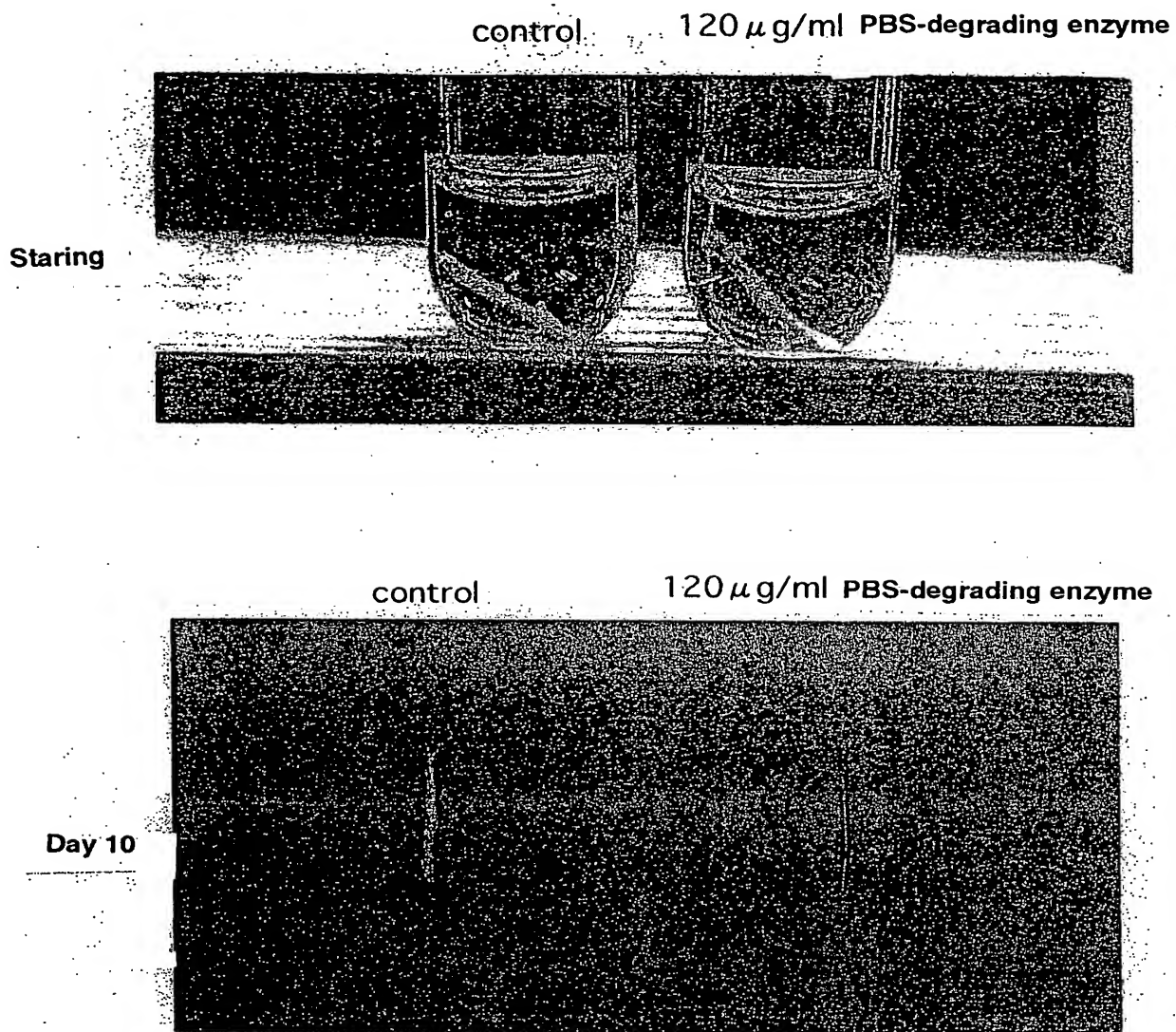


FIG. 26

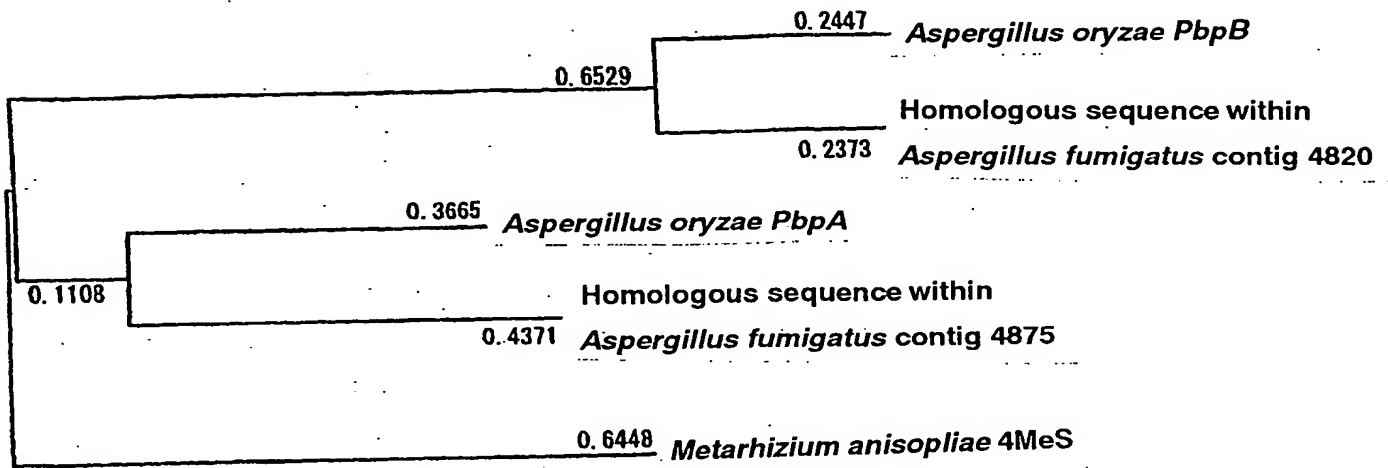


FIG. 25

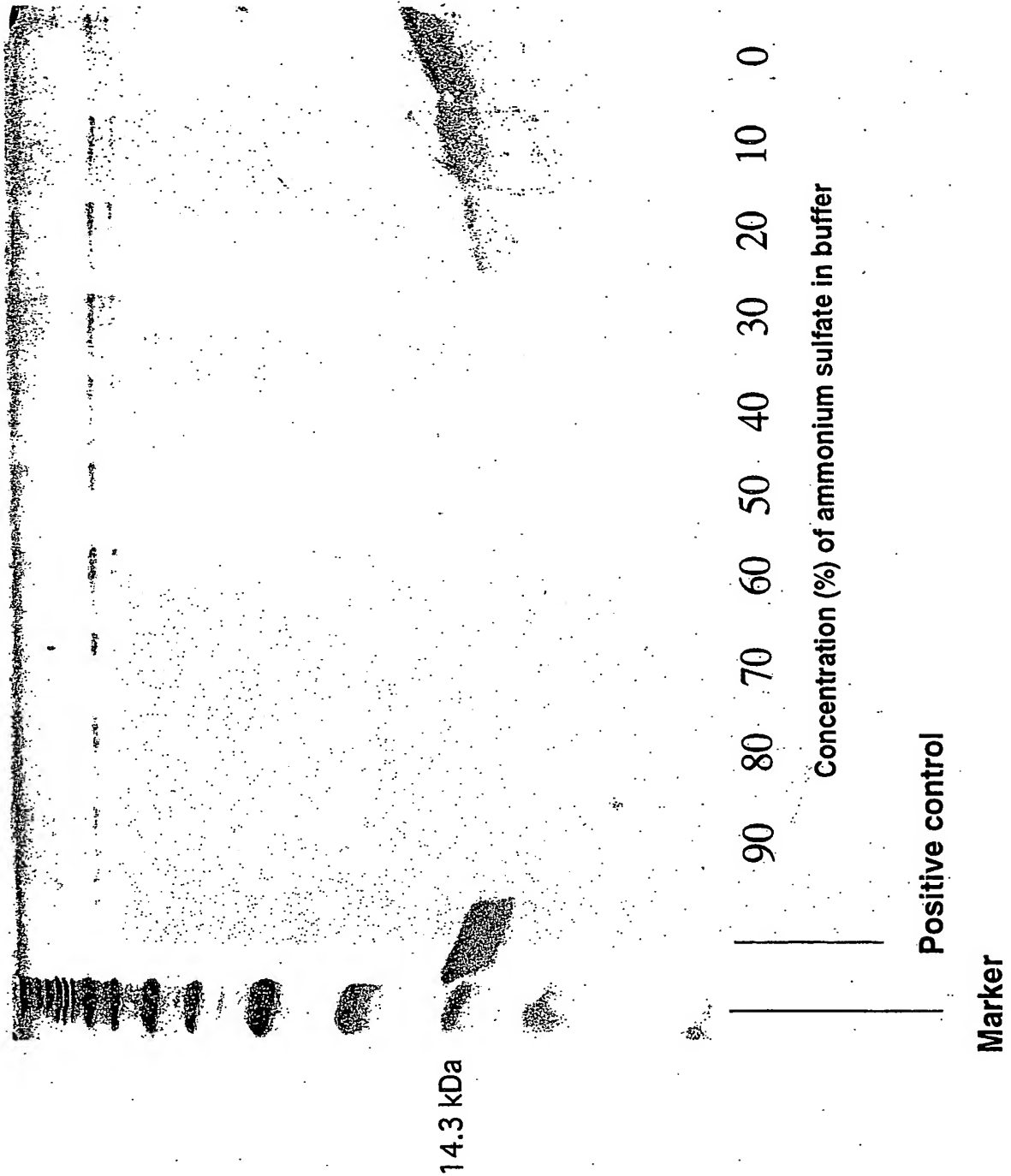


FIG. 24

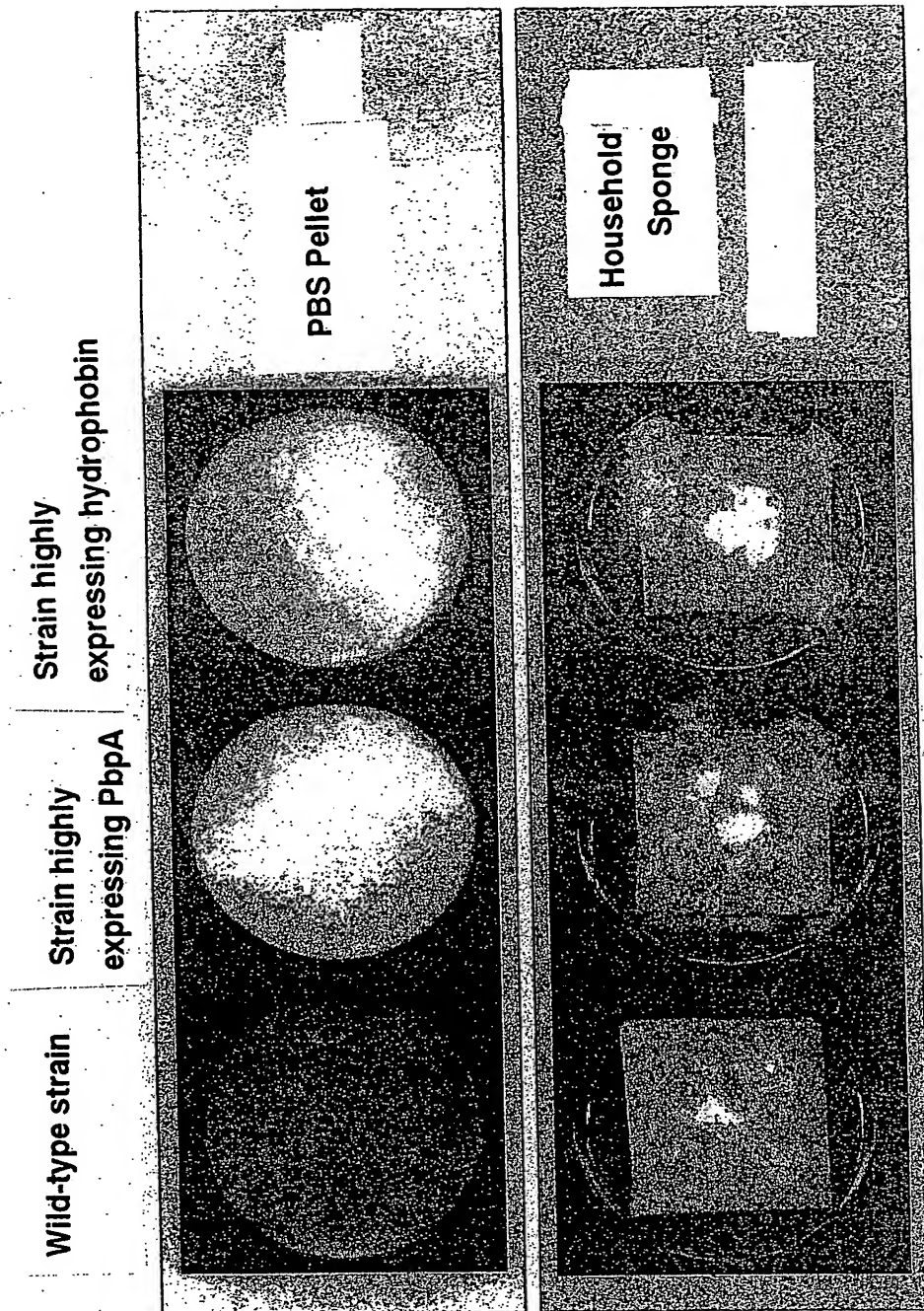
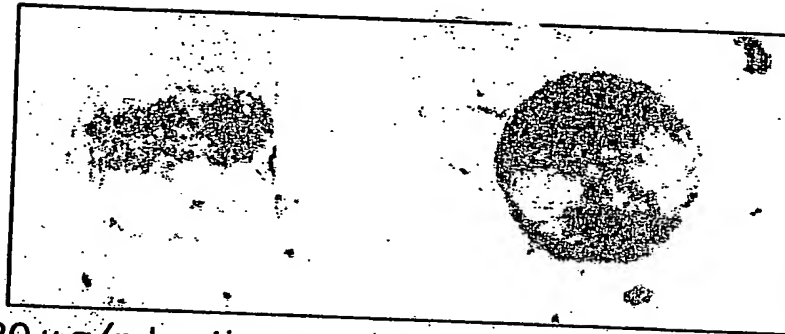
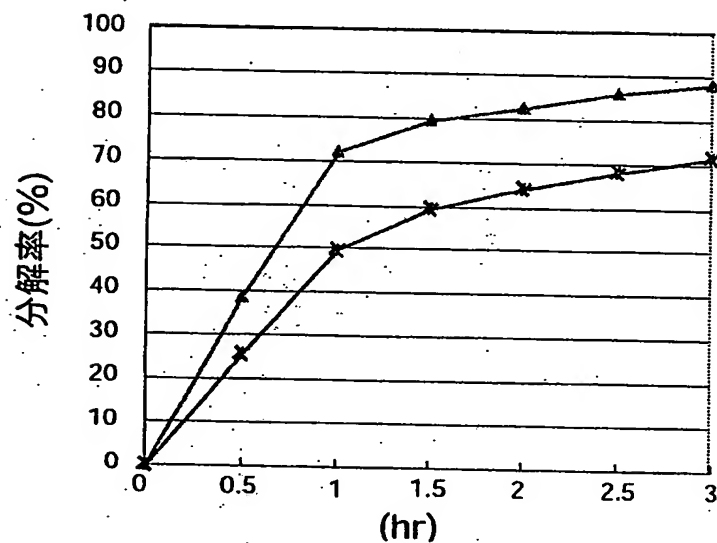


FIG. 23



20 μ g/ml cutinase 2.5 μ g/ml RolA + 20 μ g/ml cutinase

FIG. 27

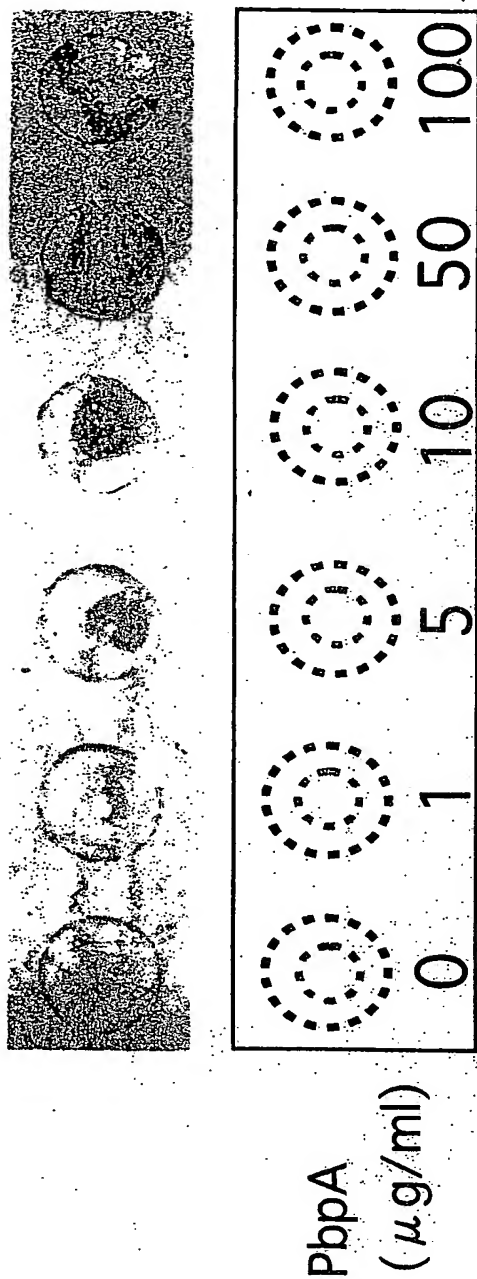


Promoting effect of RoIA for the degradation of PBS

—△— RoIA (0.025 μg/ml) + cutinase (50 μg/ml)

—×— cutinase (50 μg/ml)

FIG. 28



As the PBS film was taken as a transfer imaging, the black parts show the degradation

Filter paper soaked with cutinase



PbpA dried and attaching to PBS film

FIG. 29

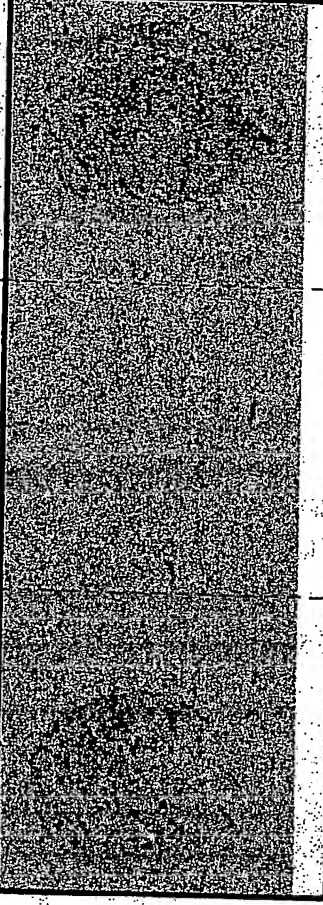
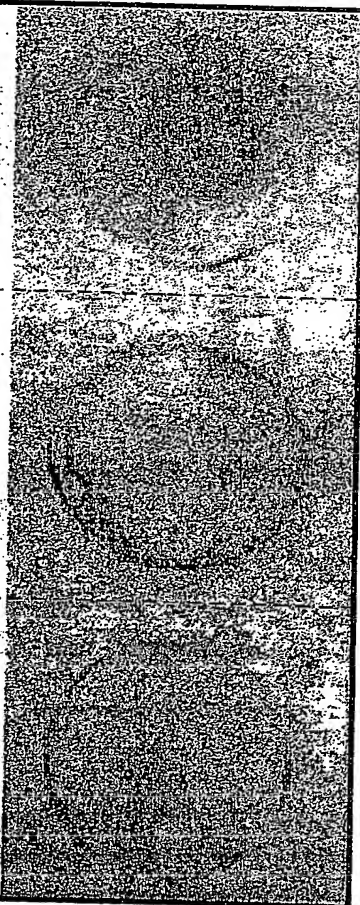
			Hydrophobin	PbpA
No addition of surfactant	Synthetic surfactant PLYSURF	Biosurfactant		

FIG. 30